



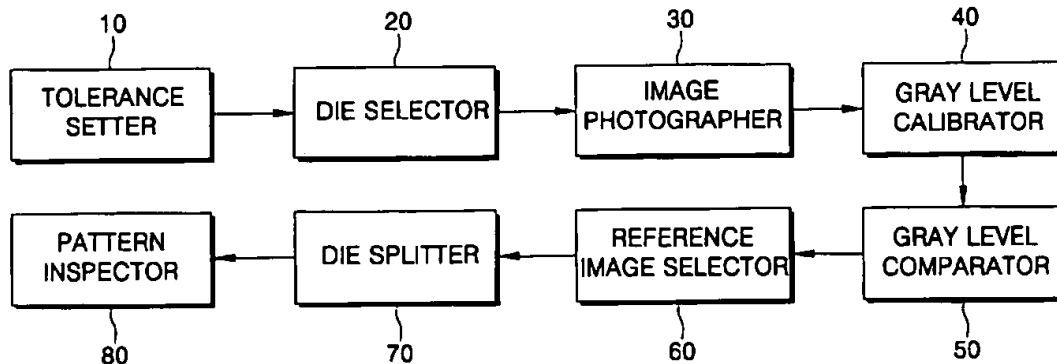
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(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2004/0057611 A1**  
Lee et al. (43) **Pub. Date: Mar. 25, 2004**(54) **METHOD FOR SELECTING REFERENCE IMAGES, METHOD AND APPARATUS FOR INSPECTING PATTERNS ON WAFERS, AND METHOD FOR DIVIDING A WAFER INTO APPLICATION REGIONS****Publication Classification**(51) **Int. Cl.<sup>7</sup>** ..... G06K 9/00(52) **U.S. Cl.** ..... 382/145(76) **Inventors:** Byoung-Ho Lee, Hwaseong-gun (KR);  
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(57) **ABSTRACT**

A method for selecting reference images, a method and an apparatus for inspecting patterns on a wafer, and a method for dividing a wafer into application regions. In a method for inspecting patterns according to at least one exemplary embodiment of the present invention, a plurality of reference dies may be selected and a difference in gray levels of images of the reference dies may be determined. The reference dies may include a first die substantially centrally located on the wafer and at least one second die located at an edge portion of the wafer. One reference image is selected if the difference in gray levels is within a permitted tolerance and more than one reference image may be selected if the difference in gray levels is not within the permitted tolerance. A pattern inspection may be performed using the reference images.



*Interfering  
Claim Subject  
matter*